

REMARKS

Claims 1, 4-7 and 9 are pending in this application. By this Amendment, claim 1 is amended and claim 8 is canceled.

No new matter is added to the application by this Amendment. Support for the features added to claim 1 is found in canceled claim 8 and paragraph [0035] of U.S. Patent Publication No. 2005/0256254 for the present application.

I. Declaration under 37 CFR 1.132

The Examiner contends that the Declaration under 37 CFR 1.132 (hereinafter "the Rule 132 Declaration") by Mr. Thorsten Krawinkel was not persuasive because Mr. Krawinkel's statement that "it is understood by those skilled in the adhesive art ... tensile strength of more than 3 N/mm²" is allegedly based on his personal opinion and without any factual evidence of record. Applicants respectfully disagree.

DE 3331 016 (cited in the present application, at page 1, line 24) provides factual evidence supporting Mr. Krawinkel's statement. A copy of DE 3331 016 and an English-language translation of DE 3331 016 are enclosed for the Examiner's convenience. DE 3331 016 sets forth specific examples of sufficient tensile strengths for redetachable adhesive sheet strips which are removable from a substrate to which they have become adhesively bonded, without leaving a residue behind or being destroyed, by extensive stretching in the plane of the bond (see page 3, paragraph 3, of the English-language translation of DE 3331 016). The table on page 3 shows that redetachable adhesive sheet strips should have a tensile strength of at least 3.33 N/mm². For example, this tensile strength of a redetachable adhesive sheet strip is

calculated by dividing the tensile strength of 100N/25mm by the thickness of 1.2mm which equals 3.33N/mm².

Thus, Applicants submit that Mr. Krawinkel's statement in the Rule 132 Declaration is not merely based on his personal opinion, but is actually based on factual evidence such as the teachings of DE 3331 016. Therefore, Applicants submit it is understood by those skilled in the adhesives art that an adhesive which is intended to be removable from a substrate to which it has become adhesively bonded, without leaving a residue behind or being destroyed, by extensive stretching in the plane of the bond, should have a tensile strength of more than 3 N/mm². Furthermore, Applicants submit that Example 1-9 of the presently claimed redetachable adhesive sheet strip satisfy this tensile strength requirement because these examples have a tensile strength of at least 9.7 MPa (see Example 5), which converts to 9.7 N/mm² because 1 MPa equals 1 N/mm².

II. Rejections under 35 U.S.C 102(b)/103(a)

A. Stempel

Claims 1 and 8 were rejected under 35 U.S.C. 102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as allegedly being unpatentable over U.S. Patent No. 5,492,943 to Stempel.

Nowhere does Stempel teach or suggest a single-sided or double-sided adhesive redetachable sheet strip which is redetachable from substrates without residue or destruction by extensive stretching in the plane of the bond as required by amended claim 1. Stempel also fails to teach or suggest a redetachable sheet strip comprising a

pressure sensitive adhesive composed of a mixture comprising a block copolymer and a tackifier, wherein at least one superabsorbent which is swellable in H₂O is incorporated into the mixture in an amount of from 0.5 to 20% by weight, based on the weight of adhesive, wherein the block copolymer is incorporated into the mixture in an amount of from 20% to 70% by weight, based on the weight of adhesive as recited in claim 1.

Stempel, as discussed in the previous Amendment, is concerned with pressure-sensitive adhesives for sealing the faceplate of an ostomy appliance to skin surfaces surrounding a patient's stoma. Stempel's adhesive is not said to be removable upon stretching in the bond plane, as is Applicants' pressure sensitive adhesive.

As discussed in the previously filed Rule 132 Declaration and Supplemental Response, Stempel's adhesives are far too weak in their tensile strength for use as redetachable adhesive sheet strips which are removable from a substrate to which they have become adhesively bonded, without leaving a residue behind or being destroyed. The highest tensile strength for an adhesive according to Stempel is 32.5 psi (see Sample 9 of Example 14) which converts to 0.224 N/mm². The conversion of tensile strength in psi to tensile strength in N/mm² is as follows:

$$32.5 \text{ psi} (6894.76\text{Pa}/1\text{psi}) (1\text{MPa}/1,000,000\text{Pa}) (1\text{N}/\text{mm}^2/1\text{MPa}) = 0.224 \text{ N}/\text{mm}^2$$

Accordingly, Stempel's tensile strength is more than 43 times weaker than the lowest tensile strength of the present invention which is 9.7 N/mm² (see Example 5 of the present invention). It is also far below the 3.33 N/mm² indicated above to be a minimum tensile strength for a stretch-release adhesive.

In view of the teachings of DE 3331 016 and highest tensile strength for an adhesive according to Stempel, it is a technical fact that Stempel's adhesives would fail in a redetachable adhesive strip because they are clearly far too weak in their tensile strength for use in a redetachable adhesive strip as discussed in the Rule 132 Declaration. Thus, Applicants submit that no person skilled in the art would ever attempt to use Stempel's adhesives in redetachable adhesive strips.

Because the features of independent claim 1 are neither taught nor suggested by Stempel, Stempel cannot anticipate, and would not have rendered obvious, the features specifically defined in claim 1.

For at least these reasons, claim 1 is patentably distinct from and/or non-obvious in view of Stempel. Reconsideration and withdrawal of the rejections of the claims under 35 U.S.C. 102(b)/103(a) are respectfully requested.

B. Ahmed et al.

Claims 1 and 4-9 were rejected under 35 U.S.C. 102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as allegedly being unpatentable over WO 99/57201 to Ahmed et al. (hereinafter "Ahmed").

Nowhere does Ahmed teach or suggest a single-sided or double-sided adhesive redetachable sheet strip which is redetachable from substrates without residue or destruction by extensive stretching in the plane of the bond as required by amended claim 1. Additionally, Ahmed does not teach or suggest a pressure sensitive adhesive composed of a mixture comprising a block copolymer and a tackifier, wherein at least one superabsorbent which is swellable in H₂O is incorporated into the mixture in an

amount of from 0.5 to 20% by weight, based on the weight of adhesive, wherein the block copolymer is incorporated into the mixture in an amount of from 20% to 70% by weight, based on the weight of adhesive as recited in claim 1.

Ahmed is directed a composition having a thermoplastic component and at least one superabsorbent polymer which may be formed into a film layer or applied to an article with various hot melt adhesive application techniques. Nowhere does Ahmed teach or suggest a pressure sensitive adhesive as required in the present claims.

Ahmed does not disclose any values for tear strength of the compositions according to Ahmed. However, the compositions of Ahmed would have tear strength values less than the tear strength values of Stempel's adhesives because the elastomers' portion of the compositions of Ahmed is small. Examples 8 and 70 are the only examples of Ahmed that include blockcopolymer. Neither Example 8 nor Example 70 describes an adhesive. Example 8 of Ahmed includes SIS blockcopolymer, Kraton D-1117 at 8.0% by weight and Example 70 triblockcopolymer, Kraton G1657 at 5% by weight. Further evidence of the small elastomer portion of Ahmed's compositions can be found in the fact that the compositions fail cohesively at room temperature during measurement of the adhesive force.

By having such small elastomer portions, the resulting compositions of Ahmed have tear strength values less than those of the adhesives of Stempel. As a result, the compositions of Ahmed would also fail in a redetachable adhesive strip because they are clearly far too weak in their tensile strength for use in a redetachable adhesive strip. Thus, Applicants submit that no person skilled in the art would ever attempt to use Ahmed's composition in redetachable adhesive strips.

Because the features of independent claim 1 are neither taught nor suggested by Ahmed, Ahmed cannot anticipate, and would not have rendered obvious, the features specifically defined in claim 1 and its dependent claims.

For at least these reasons, claims 1, 4-7 and 9 are patentably distinct from and/or non-obvious in view of Ahmed. Reconsideration and withdrawal of the rejections of the claims under 35 U.S.C. 102(b)/103(a) are respectfully requested.

C. Luhmann et al. in view of Ahmed et al.

Claims 1 and 4-9 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over U.S. Patent No. 5,897,949 to Luhmann et al. (hereinafter "Luhmann") in view of Ahmed.

The Patent Office acknowledges that Luhmann fails to teach or suggest a PSA comprising a superabsorbent. The Patent Office introduces Ahmed as allegedly remedying the deficiencies of Luhmann. The Patent Office alleges that it would have been obvious to one having ordinary skill in the art at the time the invention was made to add the superabsorbent polymer of Ahmed in the amount as taught by Ahmed in the PSA of Luhmann, motivated by the desire to form PSA tape that can effectively provide shielding against moisture and liquid penetration. Applicants respectfully disagree with these allegations.

Luhmann is directed to an adhesive tape having a foam backing coated on one or both sides with a self-adhesive composition. There is no teaching or suggestion in Luhmann or in its combination with Ahmed that would suggest that a superabsorbent polymer as described in Ahmed is useful in a redetachable adhesive tape or a pressure

sensitive adhesive because Ahmed is directed to hot melt adhesives and not directed to a redetachable adhesive tape or a pressure sensitive adhesive. Absent such teaching or suggestion in Luhmann or in its combination with Ahmed, persons ordinarily skilled in the art would not have had a motivation to form an adhesive tape comprising a superabsorbent polymer according to Luhmann with the superabsorbent described in Ahmed as alleged by the Patent Office.

As discussed above, the compositions of Ahmed have tear strength values less than those of the adhesives of Stempel and would fail in a redetachable adhesive strip. No person skilled in the art would ever add Ahmed's superabsorbent polymer to Luhmann's adhesive tapes, out of concern that this would weaken Luhmann's adhesives, as in Ahmed's composition to which the superabsorbent polymer was added, resulting in an adhesive tape that is far too weak to be even considered for Luhmann's application as removable adhesives. Moreover, persons skilled in the art would have assumed that the adhesive comprising superabsorbents would swell by taking water, and the such swelling would lead to a bending of the adhesive tape made out of such adhesive which would result in bonding joint failure throughout the adhesive tape.

Therefore, no one skilled in the art would have modified Luhmann with Ahmed to achieve the novel redetachable sheet strip defined by Applicants' claims, and the rejection of claims 1 and 4-9 under 35 U.S.C. 103(a) as allegedly being obvious over Luhmann in view of Ahmed should now be withdrawn.

III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1, 4-7 and 9 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Early and favorable action is earnestly solicited.

CONDITIONAL PETITION FOR EXTENSION OF TIME

If entry and consideration of the amendments above requires an extension of time, Applicants respectfully request that this be considered a petition therefor. The Commissioner is authorized to charge any fee(s) due in this connection to Deposit Account No. 14-1263.

ADDITIONAL FEE

Please charge any insufficiency of fees, or credit any excess, to Deposit Account

No. 14-1263.

Respectfully submitted,

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Enclosures:

Copies of DE 3331 016 and English-language translation of DE 3331 016